

LESOTHO METEOROLOGICAL SERVICES (LEKALA LA TSA BOLEPI)



Ten-Day Agrometeorological Bulletin

1 – 10 January 2008



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*...dedicated to the agricultural community
... aimed at harmonizing agricultural activities with weather and climate*

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Highlights

- ❑ Hailstorms experienced at some places
- ❑ Decrease in mean temperatures at most places
- ❑ Weeding still in progress
- ❑ Wet conditions expected.

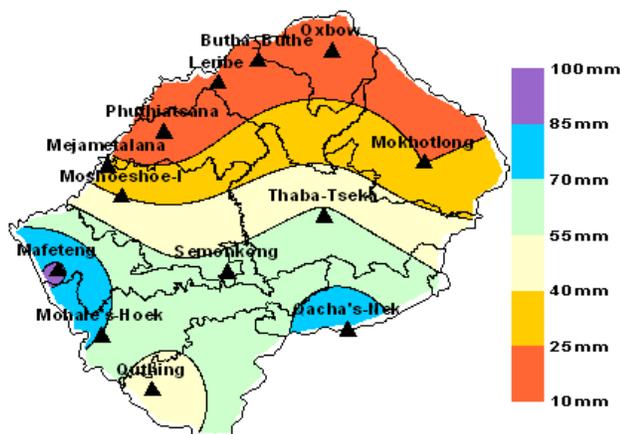
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WEATHER SUMMARY

The 1st ten days of January 2008 saw a slight improvement in rainfall compared to the last ten days of December 2008. Advection of tropical moist air from the north associated with the propagation and deepening of the surface interior trough improved. The situation was further enhanced by the frequent migration of weak cold fronts over the southern parts of the subcontinent, which tend to pull moisture from the north into the southern interior. Severe thunderstorms and destructive winds were observed from the southwest down to the southeast as moist and warm tropical air from the north interacted with relatively cool air from the west (cold front) coupled with low-level moisture advection from the east.

RAINFALL SITUATION



Map 1: January 2008, 1st Dekad Rainfall

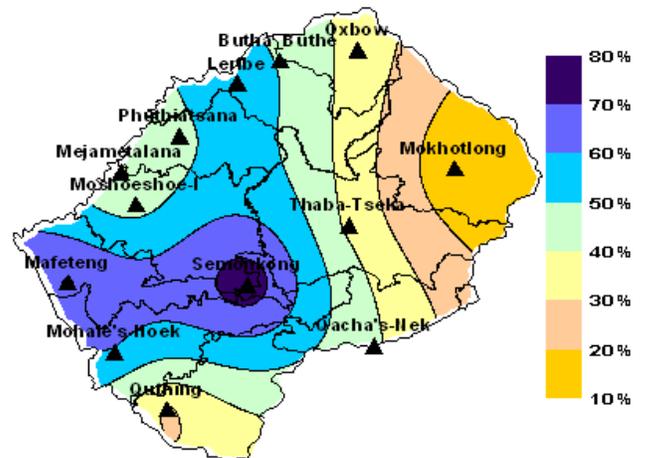
The rainfall during the first dekad of January 2008 was below normal in the northern to northwestern parts of the country and at Mokhotlong, normal at Mejametalana otherwise above normal for the rest of the country. There was a destructive storm on the 4th January 2008. The storm destroyed several properties mainly in some parts of Mafeteng, Mohale's Hoek and Quthing. It is reported that some people need urgent help to reconstruct their houses. Damages to houses alone are estimated at more than M16 millions (for details visit www.lesmet.org.ls). The highest dekad rainfall was at Mafeteng (87.8mm) while the lowest dekad rainfall was

recorded at Phuthiatsana (12.7mm). Map 1 shows spatial distribution of the dekad rainfall.

Temporal distribution of rainfall varied from place to place. On average the number of rain days were about five.

Cumulative Rainfall Percentage Departure From Normal Since September 2007.

Rainfall percentage departure from normal for the period starting from September 2007 ending first dekad of January 2008 remains at normal to above normal countrywide (Map 2, Table 1 and Fig 2). Even though percentage departure at Mokhotlong is normal, dekad rainfall has been below normal for a long period. This fact is shown by a decrease of rainfall percentage departure from normal from 150% at the beginning of the season (October 1st Dekad 2007) to the current value of 12%. There is need for close monitoring of conditions in this area.



Map 2: Rainfall % Departure from Normal (Sept 07-Jan 1st Dek 08)

TEMPERATURE

Mean dekadal temperatures were mostly below normal during the dekad under review. The only areas that experienced above normal dekadal temperatures were Mafeteng, Mohale's Hoek and Mokhotlong with deviations of 0.3°C, 0.4°C 0.8°C respectively. The lowest mean dekadal temperature deviation was -0.8°C at Phuthiatsana and Mejametalana.

The highest daily maximum temperature of the dekad was 33°C at Quthing on the 3rd while Semonkong recorded lowest daily minimum temperature of 4.5°C on the 8th (see Table 1).

CROP STAGE AND CONDITIONS

Most of the summer crops (Maize and sorghum) are at the vegetative stages. However, some crops are entering into the flowering stages. Weeding is still active countrywide. Crop conditions are generally good.

Hailstorms of the January 4th 2008 have caused crop damages of different scales from place to place. Most crop damages are along the storm paths and special emphasis is in the Mafeteng region.

Winter wheat is ready for harvest and some farmers have started. Conditions of the wheat range from fair to good. Some wheat was threshed by the hailstorms of January 4th. Heavy rainfall and thundershowers as well as hailstorms are characteristics of summer rains and their severity in January may be enhanced. Therefore it is advisable to speedup removal of wheat from the fields.

DEKADAL OUTLOOK

11– 20 January 2008

The next coming days are expected to receive mostly scattered to widespread rain showers and thundershowers. Intense thunderstorms associated with hailstorms and strong winds are anticipated at times. Temperatures are expected to remain warm.

Table 1

Rainfall and Temperature Summaries												
		Rainfall (mm)						Temperature (°C)				
		01 - 10 Jan 2008			Total From Sept07 to 1st Dek Jan 08			01 - 10 Jan 2008				
STATION	ALT.	Actual	Normal	Rain	Cumulative		%Dept from	Minimum	Maximum	Dekadal	Dekadal	
NAME	(M)	R/Fall	R/Fall	Days	Actual	Normal	Normal	Lowest(Day)	Highest (Day)	Mean	Normal	Deviation
Leribe	1740	17.4	31.3	5	504.6	321.6	57	10.3 (8)	31.2 (1)	20.5	20.7	-0.2
Mafeteng	1610	87.8	27.7	4	480.3	281.1	71	11.5 (8)	30.8 (3)	20.8	20.5	0.3
Maseru Airport	1530	27.7	28.7	5	406.4	291.9	39	9.4 (9)	31.9 (1)	21.0	21.8	-0.8
Mohale's hoek	1600	70.0	31.7	4	482.5	302.8	59	8.5 (9)	31.5 (2)	20.3	19.9	0.4
Mokhotlong	2200	24.6	34.0	3	328.2	293.7	12	8.3 (8)	30.4 (2)	18.4	17.6	0.8
Moshoeshoe I	1628	39.0	28.0	4	462.9	317.7	46	9.6 (9)	30.9 (1)	20.2	21.4	-1.2
Phuthiatsana	1750	12.7	31.0	4	489.6	332.6	47	10.3 (8)	31.1 (1)	20.5	21.3	-0.8
Qacha's Nek	1970	78.9	43.7	5	503.2	355.8	41	6.0 (9)	32.0 (2)	17.3	18.4	-1.1
Quthing	1740	45.4	32.4	4	439.4	341.6	29	9.8 (9)	33.0 (3)	20.7	21.1	-0.4
Semonkong	2458	59.4	24.6	5	517.4	292	77	4.5 (8)	26.5 (2)	15.4	15.8	-0.4
ThabaTseka	2160	57.9	27.3	7	399.3	290.4	38	7.5 (9)	28.0 (1)	16.7	17.1	-0.4

Fig. 1

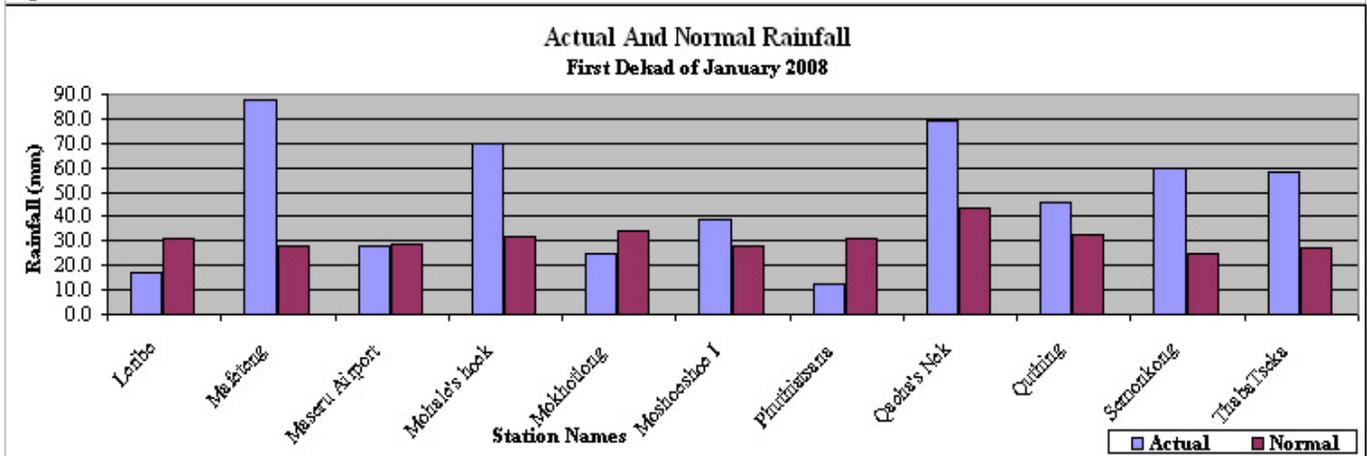
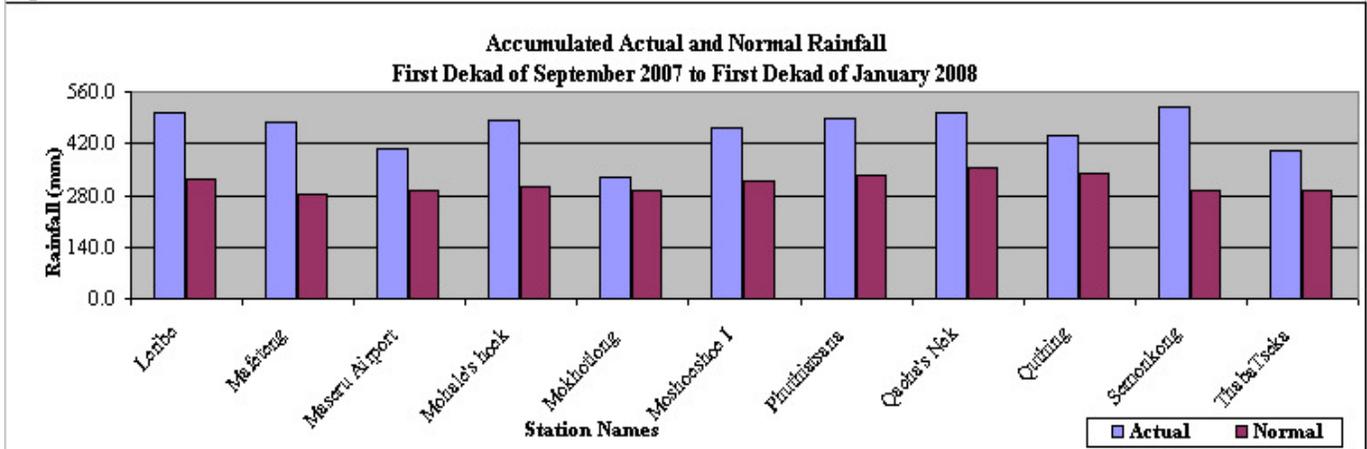


Fig. 2



Glossary

Dekad : Ten day period

Normal: Average figure over a specific time period.

% Rainfall Departure from Normal: $(\text{Actual Rainfall} - \text{Normal Rainfall}) / \text{Normal Rainfall} \times 100$

NDVI: Normalized Difference Vegetation Index – simply implies how good or bad the vegetation is for the specific period.

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And it is

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Comments and Contributions would be highly appreciated.